AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for lysing adipose tissue comprising the steps of:

directing focused ultrasonic energy at a target volume containing both adipose tissue and non-adipose tissue in a region of a body containing adipose tissue; and

modulating said focused ultrasonic energy so as to selectively lyse ~~such that~~ at least most of said adipose tissue ~~within~~ in said target volume ~~is lysed~~ and generally not lyse non-adipose tissue ~~within~~ in said target volume ~~is generally not lysed,~~ which receives said ultrasonic energy.

2. (Previously presented) A method for lysing adipose tissue according to claim 1 and wherein said directing focused ultrasonic energy generally prevents lysis of tissue outside of said target volume.

3. (Previously presented) A method for lysing adipose tissue according to claim 1 and also comprising: ultrasonic imaging of said region at least partially concurrently with directing said focused ultrasonic energy at said target volume.

4. (Previously presented) A method for lysing adipose tissue according to claim 1 and wherein said directing comprises positioning at least one ultrasonic transducer relative to said body in order to direct said focused ultrasonic energy at said target volume.

5. (Previously presented) A method for lysing adipose tissue according to claim 1 and wherein said directing comprises varying the focus of at least one ultrasonic transducer in order to direct said focused ultrasonic energy at said target volume.

6. (Original) A method for lysing adipose tissue according to claim 5 and wherein varying the focus changes the volume of said target volume.

7. (Original) A method for lysing adipose tissue according to claim 5 and wherein varying the focus changes the distance of said target volume from said at least one ultrasonic transducer.

8. (Previously presented) A method for lysing adipose tissue according to claim 3 and wherein said directing comprises positioning at least one ultrasonic transducer relative to said body in order to direct said focused ultrasonic energy at said target volume.

9. (Previously presented) A method for lysing adipose tissue according to claim 3 and wherein said directing comprises varying the focus of at least one ultrasonic transducer in order to direct said focused ultrasonic energy at said target volume.

10. (Original) A method for lysing adipose tissue according to claim 9 and wherein varying the focus changes the volume of said target volume.

11. (Original) A method for lysing adipose tissue according to claim 9 and wherein varying the focus changes the distance of said target volume from said at least one ultrasonic transducer.

12. (Original) A method for lysing adipose tissue according to claim 1 and also comprising sensing ultrasonic energy coupling to an external surface of said body adjacent said target volume.

13. (Original) A method for lysing adipose tissue according to claim 1 and also comprising sensing of cavitation at said target volume.

14. (Original) A method for lysing adipose tissue according to claim 3 and also comprising sensing ultrasonic energy coupling to an external surface of said body adjacent said target volume.

15. (Original) A method for lysing adipose tissue according to claim 3 and also comprising sensing of cavitation at said target volume.

16. (Original) A method according to claim 1 and wherein said directing takes place from an ultrasonic transducer located outside of the body.

17. (Original) A method according to claim 3 and wherein said directing takes place from an ultrasonic transducer located outside of the body.

18. (Original) A method according to claim 1 and wherein said ultrasonic energy has a frequency in a range of 50 KHz-1000 KHz.

19. (Original) A method according to claim 1 and wherein said ultrasonic energy has a frequency in a range of 100 KHz-500 KHz.

20. (Original) A method according to claim 1 and wherein said ultrasonic energy has a frequency in a range of 150 KHz-300 KHz.

21. (Original) A method according to claim 1 and wherein said modulating provides a duty cycle between 1:2 and 1:250.

22. (Original) A method according to claim 1 and wherein said modulating provides a duty cycle between 1:5 and 1:30.

23. (Original) A method according to claim 1 and wherein said modulating provides a duty cycle between 1:10 and 1:20.

24. (Original) A method according to claim 20 and wherein said modulating provides a duty cycle between 1:10 and 1:20.

25. (Original) A method according to claim 1 and wherein said modulating

provides between 2 and 1000 sequential cycles at an amplitude above a cavitation threshold.

26. (Original) A method according to claim 1 and wherein said modulating provides between 25 and 500 sequential cycles at an amplitude above a cavitation threshold.

27. (Original) A method according to claim 1 and wherein said modulating provides between 100 and 300 sequential cycles at an amplitude above a cavitation threshold.

28. (Original) A method according to claim 20 and wherein said modulating provides between 100 and 300 sequential cycles at an amplitude above a cavitation threshold.

29. (Original) A method according to claim 24 and wherein said modulating provides between 100 and 300 sequential cycles at an amplitude above a cavitation threshold.

30. (Original) A method according to claim 1 and wherein said modulating comprises modulating the amplitude of said ultrasonic energy over time.

31. (Original) A method according to claim 3 and wherein said ultrasonic energy has a frequency in a range of 50 KHz-1000 KHz.

32. (Original) A method according to claim 3 and wherein said ultrasonic energy has a frequency in a range of 100 KHz-500 KHz.

33. (Original) A method according to claim 3 and wherein said ultrasonic energy has a frequency in a range of 150 KHz-300 KHz.

34. (Original) A method according to claim 3 and wherein said modulating provides a duty cycle between 1:2 and 1:250.

35. (Original) A method according to claim 3 and wherein said modulating provides a duty cycle between 1:5 and 1:30.

36. (Original) A method according to claim 3 and wherein said modulating provides a duty cycle between 1:10 and 1:20.

37. (Original) A method according to claim 33 and wherein said modulating provides a duty cycle between 1:10 and 1:20.

38. (Original) A method according to claim 3 and wherein said modulating provides between 2 and 1000 sequential cycles at an amplitude above a cavitation threshold.

39. (Original) A method according to claim 3 and wherein said modulating provides between 25 and 500 sequential cycles at an amplitude above a cavitation threshold.

40. (Original) A method according to claim 3 and wherein said modulating provides between 100 and 300 sequential cycles at an amplitude above a cavitation threshold.

41. (Original) A method according to claim 33 and wherein said modulating provides between 100 and 300 sequential cycles at an amplitude above a cavitation threshold.

42. (Original) A method according to claim 37 and wherein said modulating provides between 100 and 300 sequential cycles at an amplitude above a cavitation threshold.

43. (Original) A method according to claim 3 and wherein said modulating comprises modulating the amplitude of said ultrasonic energy over time.

44-98. (Cancelled)

99. (Currently Amended) A method for lysing adipose tissue comprising the steps of:

directing ultrasonic energy at a multiplicity of target volumes within a region of a body, which target volumes contain adipose tissue and non-adipose tissue, thereby to selectively lyse at least most of said adipose tissue within said target volumes and generally not lyse non-adipose tissue within said target volumes which receives said ultrasonic energy; and

computerized tracking of said multiplicity of target volumes notwithstanding movement of said body.

100. (Original) A method for lysing adipose tissue according to claim 99 and wherein said computerized tracking includes sensing changes in the position of markings on said body and employing sensed changes for tracking the positions of said target volumes in said body.

101. (Currently Amended) Apparatus for lysing adipose tissue comprising:

a focused ultrasonic energy director, directing focused ultrasonic energy at a target volume in a region of a body containing adipose and non-adipose tissue; and

a modulator, cooperating with said energy director to produce a focused ultrasonic energy such that at least most of said adipose tissue within said target volume is lysed and non-adipose tissue within said target volume which receives said ultrasonic energy is generally not lysed.

102. (Original) Apparatus for lysing adipose tissue according to claim 101 and wherein said director generally prevents lysis of tissue outside of said target volume.

103. (Previously presented) Apparatus for lysing adipose tissue according to claim 101 and also comprising: an ultrasonic imager providing ultrasonic imaging of said region at least partially concurrently with directing said focused ultrasonic energy at said target volume.

104. (Previously presented) Apparatus for lysing adipose tissue according to claim 101 and wherein said director comprises a positioner, positioning at least one ultrasonic transducer relative to said body in order to direct said focused ultrasonic energy at said target volume.

105. (Previously presented) Apparatus for lysing adipose tissue according to claim 101 and wherein said director varies the focus of at least one ultrasonic transducer in order to direct said focused ultrasonic energy at said target volume.

106. (Original) Apparatus for lysing adipose tissue according to claim 105 and wherein varying the focus changes the volume of said target volume.

107. (Original) Apparatus for lysing adipose tissue according to claim 105, and wherein varying the focus changes the distance of said target volume from said at least one ultrasonic transducer.

108. (Previously presented) Apparatus for lysing adipose tissue according to claim 103 and wherein said director positions at least one ultrasonic transducer relative to said body in order to direct said focused ultrasonic energy at said target volume.

109. (Previously presented) Apparatus for lysing adipose tissue according to claim 103 and wherein said director varies the focus of at least one ultrasonic transducer in order to direct said focused ultrasonic energy at said target volume.

110. (Original) Apparatus for lysing adipose tissue according to claim 109 and wherein varying the focus changes the volume of said target volume.

111. (Original) Apparatus for lysing adipose tissue according to claim 109 and wherein varying the focus changes the distance of said target volume from said at least one ultrasonic transducer.

112. (Original) Apparatus for lysing adipose tissue according to claim 101 and also comprising a sensor, sensing ultrasonic energy coupling to an external surface of said body adjacent said target volume.

113. (Original) Apparatus for lysing adipose tissue according to claim 101 and also comprising a sensor, sensing of cavitation at said target volume.

114. (Original) Apparatus for lysing adipose tissue according to claim 103 and also comprising a sensor, sensing ultrasonic energy coupling to an external surface of said body adjacent said target volume.

115. (Original) Apparatus for lysing adipose tissue according to claim 103 and also comprising a sensor, sensing of cavitation at said target volume.

116. (Original) Apparatus according to claim 101 and wherein said director comprises an ultrasonic transducer located outside of the body.

117. (Original) Apparatus according to claim 103 and wherein said director comprises an ultrasonic transducer located outside of the body.

118. (Original) Apparatus according to claim 101 and wherein said ultrasonic energy has a frequency in a range of 50 KHz-1000 KHz.

119. (Original) Apparatus according to claim 101 and wherein said ultrasonic energy has a frequency in a range of 100 KHz-500 KHz.

120. (Original) Apparatus according to claim 101 and wherein said ultrasonic energy has a frequency in a range of 150 KHz-300 KHz.

121. (Original) Apparatus according to claim 101 and wherein said modulator provides a duty cycle between 1:2 and 1:250.

122. (Original) Apparatus according to claim 101 and wherein said modulator provides a duty cycle between 1:5 and 1:30.

123. (Original) Apparatus according to claim 101 and wherein said modulator provides a duty cycle between 1:10 and 1:20.

124. (Previously presented) Apparatus according to claim 120 and wherein said modulator provides a duty cycle between 1:10 and 1:20.

125. (Original) Apparatus according to claim 101 and wherein said modulator provides between 2 and 1000 sequential cycles at an amplitude above a cavitation threshold.

126. (Original) Apparatus according to claim 101 and wherein said modulator provides between 25 and 500 sequential cycles at an amplitude above a cavitation threshold.

127. (Original) Apparatus according to claim 101 and wherein said modulator provides between 100 and 300 sequential cycles at an amplitude above a cavitation threshold.

128. (Original) Apparatus according to claim 120 and wherein said modulator provides between 100 and 300 sequential cycles at an amplitude above a cavitation threshold.

129. (Original) Apparatus according to claim 124 and wherein said modulator provides between 100 and 300 sequential cycles at an amplitude above a cavitation threshold.

130. (Original) Apparatus according to claim 101 and wherein said modulator modulates the amplitude of said ultrasonic energy over time.

131. (Original) Apparatus according to claim 103 and wherein said ultrasonic energy has a frequency in a range of 50 KHz-1000 KHz.

132. (Original) Apparatus according to claim 103 and wherein said ultrasonic energy has a frequency in a range of 100 KHz-500 KHz.

133. (Original) Apparatus according to claim 103 and wherein said ultrasonic energy has a frequency in a range of 150 KHz-300 KHz.

134. (Original) Apparatus according to claim 103 and wherein said modulator provides a duty cycle between 1:2 and 1:250.

135. (Original) Apparatus according to claim 103 and wherein said modulator provides a duty cycle between 1:5 and 1:30.

136. (Original) Apparatus according to claim 103 and wherein said modulator provides a duty cycle between 1:10 and 1:20.

137. (Original) Apparatus according to claim 133 and wherein said modulator provides a duty cycle between 1:10 and 1:20.

138. (Original) Apparatus according to claim 103 and wherein said modulator provides between 2 and 1000 sequential cycles at an amplitude above a cavitation threshold.

139. (Original) Apparatus according to claim 103 and wherein said modulator provides between 25 and 500 sequential cycles at an amplitude above a cavitation threshold.

140. (Original) Apparatus according to claim 103 and wherein said modulator provides between 100 and 300 sequential cycles at an amplitude above a cavitation threshold.

141. (Original) Apparatus according to claim 133 and wherein said modulator provides between 100 and 300 sequential cycles at an amplitude above a cavitation threshold.

142. (Original) Apparatus according to claim 137 and wherein said modulator provides between 100 and 300 sequential cycles at an amplitude above a cavitation threshold.

143. (Original) Apparatus according to claim 103 and wherein said modulator modulates the amplitude of said ultrasonic energy over time.

144-198. (Canceled)

199. (Currently Amended) Apparatus for lysing adipose tissue comprising:

a director, directing ultrasonic energy at a multiplicity of target volumes within a region of a body, which target volumes contain adipose tissue and non-adipose tissue, thereby to lyse at least most of said adipose tissue within said target volumes and generally not lyse non-adipose tissue within said target volumes which receives said ultrasonic energy; and

computerized tracking functionality providing computerized tracking of said multiplicity of target volumes notwithstanding movement of said body.

200. (Original) Apparatus for lysing adipose tissue according to claim 199 and wherein said computerized tracking functionality is operative to sense changes in the position of markings on said body and to employ sensed changes for tracking the positions of said target volumes in said body.